STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7663

Petition of Green Mountain Power Corporation for a	)
Declaratory Ruling that a certificate of public good	)
pursuant to 30 V.S.A. § 248 is not required for the	)
reconductoring of the 3314 transmission line tap to the	)
Airport Substation in South Burlington, Vermont	)

Order entered: 9/24/2010

DECLARATORY RULING

I. INTRODUCTION

On August 11, 2010, Green Mountain Power Corporation ("GMP") filed a petition with the Public Service Board ("Board") seeking a declaratory ruling, pursuant to 3 V.S.A. § 808 and Board Rule 2.403, that a certificate of public good ("CPG") pursuant to 30 V.S.A. § 248 is not required for the reconductoring of the 3314 transmission line tap to the Airport Substation #79 ("Airport Tap") in South Burlington, Vermont (the "Project"). GMP's petition contends that the Project is a "replacement of existing facilities with equivalent facilities in the usual course of business" and therefore should be exempt from the requirement to obtain a CPG, pursuant to 30 V.S.A. § 248(a)(2). GMP's petition includes a supporting brief and the prefiled testimony and exhibit of Terry Cecchini.

On August 18, 2010, the Clerk of the Board issued a memorandum seeking comments on the petition, including any requests for an evidentiary hearing, by September 1, 2010.

On September 1, 2010, the Department of Public Service ("Department") filed a letter stating that the Board should grant GMP's request for a declaratory ruling, without holding an evidentiary hearing.

For the reasons stated below, we deny GMP's request.

II. FINDINGS

1. The existing Airport Tap, approximately 2,700 feet in length, consists of the conductor and seven poles of cross-arm construction. Of these seven poles, six are fifty-foot, class three poles (43' above-ground) and one is a forty-five-foot, class four pole (38.5' above-ground). The line, located along Poor Farm Road in South Burlington, is a radial tap on the 3314 line that feeds Airport Substation #79 at 34.5 kV and provides a 4.16 kV distribution source to the Vermont Air National Guard base at the Burlington International Airport and to residential customers at Country Club Estates. Cecchini pf. at 2; exh GMP-TC-A.

2. The existing conductor needs to be replaced with a larger conductor because of the effect of fault current on the existing conductor. The available fault current on the line has increased to unacceptable levels due to the additions of 115/34.5 kV sources at Essex and Taft's Corners, which can cause damaging annealing to the existing conductor. Outages have occurred on the line due to conductor splice failure and wire fatigue. The splices further weakened the integrity and strength of the conductor. Cecchini pf. at 2.

3. GMP proposes replacing the existing #4 aluminum conductor, steel reinforced cable (Swan-0.25 inch diameter) with 4/0 all aluminum alloy conductor-6201 cable (Alliance-0.56 inch diameter) and replacing two poles. GMP proposes replacing one of the six existing fifty-foot, class three poles with a pole the same height because of extensive woodpecker damage. In addition, GMP proposes replacing the one forty-five-foot, class four pole with a fifty-foot, class three pole, so that all the line's poles would be the same height. Cecchini pf. at 2-3.

4. The existing conductor is rated at 140 amps or 8.4 MVA at 34.5 kV. The proposed conductor would be rated at 315 amps or 18.8 MVA at 34.5 kV. Cecchini pf. at 3.

5. The capacity of the existing conductor is 500 percent greater than the capacity provided by the 1.5 MVA transformer at the Airport Substation. The proposed conductor would increase the line's capacity to 1600 percent of the Airport Substation's capacity.[1] The increased capacity is not necessary to serve the current or anticipated electric demand on the line or the 2.2 MW

1. Due to a typographical error, the 1600 percent figure listed here was represented as 1300 percent in Mr. Cecchini's prefiled testimony and in GMP's Brief in Support of a Declaratory Ruling. The Department represents that GMP agrees with the corrected number. Letter from Sarah Hofmann, Esq., to Susan Hudson, Clerk of the Board, filed September 1, 2010.

solar electric generation facility installation that is currently under consideration by the Vermont Air National Guard, but is only required to address the fault-current issue. Cecchini pf. at 2-4.

6. The Project is estimated to cost approximately $120,000. Cecchini pf. at 4.

7. GMP proposes commencing construction during the spring of 2011. Construction is estimated to be completed in less than one month and GMP would utilize a mobile substation to serve customer load during the reconductoring. Cecchini pf. at 4.

III. DISCUSSION

Construction of an electric generation or transmission facility in Vermont requires a certificate of public good pursuant to 30 V.S.A. § 248, "[e]xcept for the replacement of existing facilities with equivalent facilities in the usual course of business."[2] The Board's three-part test for determining whether a proposed project constitutes a "replacement of existing facilities with equivalent facilities in the usual course of business" is as follows:

> 1. An assessment must be made of whether the changes proposed are within the existing right-of-way. If the facility or change cannot be accommodated within the existing right-of-way, a [CPG] will most likely be required.
>
> 2. The proposed changes to the line should also not significantly alter the capacity of the existing line. Again, if the basic capabilities or capacities of the line change, the presumption that the new or altered line is an equivalent line would be lost and Board approval would be required.
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> 3. Finally, if the above two criteria are satisfied, an assessment should be made as to whether the changes will actually result in the installation of "equivalent" facilities in other respects that are relevant to the criteria set out in 30 V.S.A. § 248. To make this determination, the proposal must be reviewed to determine if there will be any **significant** impacts under any of the criteria of 30 V.S.A. § 248. If such an impact is evident, again the presumption that the line is the replacement of an existing facility with an "equivalent" facility would be lost and a petition for a certificate of public good must be filed.[3]

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2. 30 V.S.A. § 248(a)(2). GMP's filing indicates that the existing Airport Tap was installed in 1952, before the passage of Section 248; therefore, Board Rule 5.408 does not apply and we do not need to determine whether an amendment to an existing CPG is required.

3. *Petition of Tilley v. Green Mountain Power Corp.*, Docket 5514, Order of 7/29/91 at 10 (emphasis in original); *see also Investigation into Citizens Utilities Co.*, Dockets 5841/5859, Order of 6/16/97 at 142; *Petition for Declaratory Ruling by Town of Stowe Electric Department*, Docket 6761, Order of 11/14/02 at 3.

GMP and the Department contend that the proposal to replace the conductor and two power poles on the Airport Tap line satisfies all three parts of the Board's test for determining whether a project is "the replacement of existing facilities with equivalent facilities in the usual course of business."

The first factor to be addressed is whether the Project-related changes would occur within the existing right-of-way. In this case, GMP represents that the reconductoring and pole replacements will both occur within the existing right-of-way.[4]

The second factor to be addressed is whether the Project would significantly alter the capacity of the existing line. GMP asserts that while the reconductoring will increase capacity, the increased capacity is "essentially meaningless" because it is "an incidental unneeded attribute of the new conductor."[5] The Department claims that the increased capability would have "no effect because the 1.5 MVA transformer at the substation is the limiting factor" and "reconductoring alone will not allow greater capacity over the line."[6] Thus, GMP and the Department contend that, under the Board's three-part test, the proposed reconductoring is a replacement of an existing facility with an equivalent facility.

We disagree with GMP's and the Department's assertions and conclude that reconductoring a line with a conductor capacity that is more than double the existing conductor's capacity is not a replacement of an existing facility with an equivalent facility. We have established in previous Board orders that whether or not a utility intends, or is equipped, to utilize a proposed component's increased capacity does not affect the Board's analysis of whether a project will increase the capacity of a transmission facility. For instance, in Docket 6602, we concluded that while a utility may contend that its proposal to reconductor a line "is not intended to increase the capacity of the line . . . the fact is that the reconductored line [would] have the

4. Although GMP neglected to address this first factor in its prefiled testimony, the right-of-way is addressed in other submissions by the parties. *See GMP's Brief in Support of a Declaratory Ruling*, filed on 8/11/10, at 2; letter from Sarah Hofmann, Esq., to Susan Hudson, Clerk of the Board,, filed September 1, 2010, at 2.

5. *GMP's Brief in Support of a Declaratory Ruling* at 2.

6. Letter from Sarah Hofmann, Esq., to Susan Hudson, Clerk of the Board,, filed September 1, 2010, at 2.

capability of delivering approximately double the power of the existing line . . . effectively increases the capacity of the line by a factor of two."[7]

In addition, as we discussed in Docket 6544, a conclusion that the capacity of a transmission facility has not increased "until every associated component is replaced is irrational and would lead to absurd results in practice."[8] Accordingly, in Docket 6544, we concluded that even though some additional components may be required to actually utilize expanded transformer capacity at a substation, the fact that the "major components . . . that determine its capacity have been replaced" is enough to show that a project will significantly alter capacity.[9] Therefore, whether or not GMP needs, intends, or is equipped to utilize the increased capacity of the proposed conductor is irrelevant to our analysis. Instead, as in Dockets 6544 and 6602, we consider whether the proposed conductor is a major component that determines the capacity of a transmission facility and whether the reconductored line will have an increased capacity to transmit power.

First, we address whether the proposed conductor is a major component that determines the capacity of a transmission facility. The Department correctly notes that a transformer is a key component for increasing capacity and, in this case, the 1.5 MVA transformer at the Airport Substation is a limiting factor. However, the Department's position fails to recognize that the conductor is an equally essential component for determining capacity and is clearly not a minor component of a transmission facility. Second, we address whether the reconductored line will have an increased capacity to deliver power. As proposed, the reconductoring would more than double the capacity of the existing Airport Tap from 500 percent to 1600 percent of the Airport Substation's capacity (from 140 amps or 8.4 MVA to 315 amps or 18.8 MVA).[10] Therefore,

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7. *Petition of Citizens Communications Company*, Docket 6602, Order of 8/7/02 at 2-4 (Citizens proposed replacing the existing 1/0 conductor [0.4 inch] with a larger 336 ACSR conductor [0.7 inch], which would have approximately doubled the capacity of the line to deliver power from less than 15 MW to 30 MW).

8. *Petition of Vermont Electric Cooperative, Inc.*, Docket 6544, Order of 2/20/02 at 7.

9. Docket 6544, Order of 2/20/02 at 3-4 and 7-8 (VEC replaced three existing 1250 kV transformers with three 2500 kV transformers, but contended that because other components were needed to actually increase the capacity of the substation to the nameplate rating of the transformers that the project did not increase the capacity of the substation).

10. *See* findings 4-5.

while GMP may not need, intend, or be equipped to utilize the increased capacity of the proposed conductor, the fact that the proposal would more than double the existing line's capacity clearly and significantly alters the capabilities of the existing Airport Tap to transmit power.[11]

Given that the Project would significantly alter the capacity of the Airport Tap, we do not reach the third question concerning whether the proposed project will have any significant impacts under any of the substantive criteria of Section 248(b).[12]

IV. CONCLUSION

Based upon the findings above, we conclude that GMP's proposed reconductoring of the Airport Tap is not a replacement of an existing facility with an equivalent facility in the usual course of business and therefore requires review under Section 248.[13]

V. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that the proposed reconductoring of the 3314 transmission line tap to the Airport Substation #79 in South Burlington, Vermont, as described in the findings above, is not a replacement of an existing facility with an equivalent facility in the usual course of business and requires review under 30 V.S.A. § 248.

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11. *See* Docket 6602, Order of 8/7/02 at 3-4; Docket 6544, Order of 2/20/02 at 7-8.

12. Notably, GMP does not contend that the proposed project will not have significant impacts under the criteria of Section 248. Instead, GMP contends that the proposed project would enhance system stability and reliability (30 V.S.A. § 248(b)(3)), be consistent with the orderly development of the region (30 V.S.A. § 248(b)(1)), and provide an economic benefit to the state (30 V.S.A. § 248(b)(4)). *GMP's Brief in Support of a Declaratory Ruling* at 2. In addition, if GMP submits a petition for a CPG, pursuant to Section 248, for the reconductoring of the Airport Tap, GMP should address whether the implementation of demand-side management could avoid the need for the proposed reconductoring (30 V.S.A. § 248(b)(2)) .

13. It appears that the unacceptable fault-current levels added to the Airport Tap should have been identified during the Tafts Corners and Essex substation-upgrade projects, and presumably the Airport Tap upgrade could have been included in one of those projects.

Dated at Montpelier, Vermont, this 24th day of September, 2010.

s/ James Volz)
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) PUBLIC SERVICE
)
s/ David C. Coen) BOARD
)
) OF VERMONT
s/ John D. Burke)

OFFICE OF THE CLERK

FILED: September 24, 2010

ATTEST: s/ Susan M. Hudson
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.